



Estech General Chemicals Corporation

*As per Otis James This
should not be on flag file.*

April 30, 1980

Mr. Barhat Matur
Mgr., Permit Section
Illinois Environmental Protection Agency
Division of Air Pollution Control
2200 Churchill Road
Springfield, IL 62706

Dear Mr. Matur:

This is to notify you that our company has undergone
a name change from:

Swift Agricultural Chemicals Corp.
2501 North Kingshighway
Fairmont City, IL 62202

163 050AAB

to: Estech General Chemicals Corp.
2501 North Kingshighway
Fairmont City, IL 62202

There has been no change in ownership, but merely a
name change within the same corporation.

Please change your records accordingly.

Sincerely,

ESTECH GENERAL CHEMICALS CORPORATION

R. O. Britt

R. O. Britt
Operations Manager

ROB/as

RECEIVED

MAY 05 1980

IEPA-DAFC-SPFLD

XXXXXXXXXXXXXXXXXXXXXXXXXXXX

NOV 20 1979

618-345-0700

Mr. Robert Britt
SWIFT CHEMICAL CO.
2501 North Kingshighway
Fairmont City, IL 62201

I.D. 163 050 AAB

Dear Mr. Britt:

During our recent field investigation of your facility, we found general compliance with Illinois environmental regulations regarding air pollution matters. We wish to express our appreciation, and that of the people of Illinois, for the conscientious manner in which your company is now operating this facility.

Naturally, if any modifications or changes are contemplated which cause additional emissions, we suggest you contact our Regional Office in order to ascertain the applicable air pollution control requirements before you undertake such changes or modifications.

Again, we wish to thank you for the time spent with us during the inspection and to encourage you and your company to continue in protecting the environment of Illinois.

Very truly yours,

ORIGINAL SIGNED BY MR. FRANKE

Walter H. Franke, P.E.
Supervisor, Region III
Air Pollution Control

WHF:OHB:pbo

cc: DAPC Central File
cc: Region III File



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

MEMORANDUM

TO:

ID# 163050 AAB

TO:

FROM:

SUBJECT: Facility: Swift Chemical Co.Address: 2501 North KingshighwayPerson Contacted and Title: Robert Brit, ManagerDate and Basis of Investigation: 9/24/79 To Work Place☒ Potential 100 T/Yr ☒ TAS Update ☐ Other (explain).

Emissions (List sources and calculations, Actual and Allowable, lb/hr, T/ yr):

*TAS has been updated.
See current T.A.S.*

Disposition: ☒ Form 177 ☐ TAS Update ☐ Warning Letter☒ No violations observed and facility has all necessary permits.

Comments:

OK

XXXXXXXXXXXXXXXXXXXX
RECEIVED
XXXXXXXXXXXXXXXXXXXX

FEB 21 1979

ENVIRONMENTAL PROTECTION AGENCY
STATE OF ILLINOIS

(618)
345-0700

February 20, 1979

Mr. Robert Britt
Swift Chemical Corp.
2501 Kingshighway
East St. Louis, IL 62201

I.D. 163 050 AAB

Dear Mr. Britt:

During our recent field investigation of your facility, we found general compliance with Illinois environmental regulations regarding air pollution matters. We wish to express our appreciation, and that of the people of Illinois, for the conscientious manner in which your company is now operating this facility.

Naturally, if any modifications or changes are contemplated which cause additional emissions, we suggest you contact our Regional Office in order to ascertain the applicable air pollution control requirements before you undertake such changes or modifications.

Again, we wish to thank you for the time spent with us during the inspection and to encourage you and your company to continue in protecting the environment of Illinois.

Sincerely yours,

Walter H. Franke, P.E.
Supervisor, Region III
Air Pollution Control

WHF:OHB:pbo

cc: DAPC Central File ✓
cc: Region III File



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

MEMORANDUM

DATE: April 19, 1977

TO: Walter Franke *W*

FROM: Otis Banes - *ONB*

SUBJECT: SWIFT CHEMICAL - Ron Biggs Complaint - Chemical Odors

I.D. 163 050 AAB

RECEIVED

APR 21 1977

ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
STATE OF ILLINOIS

On April 18, 1977, I contacted Mr. Ron Biggs of 2610 North Kingshighway, Fairmont City, St. Clair County. Mr. Biggs operates a ConocoService station adjacent to his home. The chemical odors, according to Mr. Biggs, originates at the Swift fertilizer plant located at 2501 North Kingshighway approximately 200 feet southwest of Mr. Biggs' home and service station.

Mr. Biggs states that at approximately 1:15 p.m. on April 14, 1977 that he and his family were bothered by ammonia fumes from the Swift plant. He continued that the fumes irritates the eyes, nose and throat. He further stated that if an automobile is parked at his service station and fumes from the Swift plant are present, the automobile becomes coated with white dust. I asked Mr. Biggs if he contacted the Swift plant concerning the chemical odors. Mr. Biggs reported that he did not contact the plant. He continued that in the past he has telephoned the plant concerning odors and that plant personnel became sarcastic and on one occasion he (Biggs) threatened to go to the plant with a shotgun.

I informed Mr. Biggs that I would visit the plant and discuss the ammonia odors with Mr. Britt, the plant manager, but that I would not disclose the name of the complainant.

After leaving Mr. Biggs' service station I made a plant visit at the Swift Chemical Company and contacted Mr. R. Britt, the manager. I informed Mr. Britt of the ammonia complaint on April 14, 1977 and asked if there was any malfunction of equipment on the above date. Mr. Britt remarked that he was not aware of any malfunctions on the date concerned and that he had not received any odor complaints. Mr. Britt commented that when the plant shuts down in June for repairs the method of adding ammonia to the ammoniator ~~for~~ will be changed which should reduce or eliminate ammonia odors. I informed Mr. Britt that if there were any malfunctions of equipment he should notify our office. Mr. Britt stated that he would notify our office of any malfunctions of equipment.

OHB:pbo

cc: Miles Zamco (Orig.) ✓
cc: Region IV Files

FAIRMONT CITY -- Air Pollution

October 6, 1966

L. F. Patterson, Plant Manager
Mobil Chemical Company
Agriculture Division
Kingshighway & Vandalia R. R. Tracks
Fairmont City, Illinois

Dear Mr. Patterson:

We wish to thank you for the courtesy extended to our engineer, Mr. Anton M. Telford, during his visit to your plant on September 6, 1966.

This visit is part of our staff program authorized by the Illinois Air Pollution Control Board to obtain detailed information regarding emissions to the atmosphere from the industries in the Metro-East area. This information will serve as the basis for further discussions with individual sources regarding emission reduction plans.

From Mr. Telford's memorandum, it is also noted that open burning of plant refuse is occasionally practiced on your plant site. Open burning is in violation of the "Rules and Regulations" of the Board and an alternate method, either a hauling service or a properly designed incinerator, should be used.

We would appreciate your completing and returning to this office the emission inventory form which Mr. Telford left with you during his visit. Any other pertinent information which you feel will be helpful in this regard may be submitted on separate sheets.

Your early cooperation in this matter will be appreciated.

Very truly yours,

C. W. Klassen
Technical Secretary

cc: WCRO
East Side Health District
Village President & Board of Trustees/
Fairmont City
Mr. A. M. Telford

T/vba

ILLINOIS AIR POLLUTION CONTROL BOARD

DIVISION OF SANITARY ENGINEERING
ILL. DEPT. OF PUBLIC HEALTH

EMISSIONS INVENTORY

FIRM NAME SWIFT & CO., AARICHEN DIV.
 ADDRESS Box 66
 CITY NATIONAL STOCK YARDS, ILL.
 PERSON CONTACTED R.O. BRITT TITLE Supt. DATE 10/4/66
 TELEPHONE NUMBER OF FIRM UP 4-7811 INVESTIGATOR A.M. TELPORD

1. FUEL USED FOR HEAT, POWER, OR ELECTRICAL GENERATION.

- A. NOT APPLICABLE _____
 B. PRINCIPAL TYPE OF FUEL USED OIL
 C. SECONDARY TYPE OF FUEL USED _____
 D. SOURCE OF COAL _____
 E. TRADE NAME OF COAL _____ SIZE _____
 F. FUEL OIL NO. 3 SULFUR CONTENT _____

2. AMOUNT OF FUEL USED.

- | | Coal | Oil | Gas |
|---|-------|-----------------------|------|
| A. NOT APPLICABLE _____ | | | |
| B. AMOUNT OF PRINCIPAL FUEL <u>60000-130000</u> | TONS, | <u>GALS</u> , CU.FT./ | Year |
| C. AMOUNT OF SECONDARY FUEL _____ | TONS, | GALS, CU.FT./ | Year |
| D. MINIMUM MONTHLY RATE PRINCIPAL FUEL USE <u>NONE</u> | TONS, | <u>GALS</u> , CU.FT./ | Year |
| E. MAXIMUM MONTHLY RATE PRINCIPAL FUEL USE <u>15000</u> | TONS, | <u>GALS</u> , CU.FT./ | Year |

3. COAL BURNING UNIT(S)

- A. NOT APPLICABLE ☒
 B. NUMBER OF UNITS _____
 C. PRINCIPAL TYPE(S) OF COAL BURNING UNIT(S) _____

03660001517

D. HOW FIRED? _____

E. CAPACITY _____ TONS PER HOUR.

F. TYPE OF FLY ASH COLLECTION UNIT(S) _____

4. STACK INFORMATION

A. NOT APPLICABLE _____

B. NUMBER OF STACKS 2C. STACK HEIGHT ABOVE GRADE 60 FT.D. STACK USE GRANULATOR + DRYER EMISSION

5. MANUFACTURING ACTIVITIES

A. DAYS PER WEEK NORMALLY IN OPERATION 5B. DAYS PER YEAR 180C. NO. OF SHIFTS NORMALLY IN OPERATION 2 PER DAYD. PEAK SEASON. STEADY _____ SUMMER _____ FALL ☒ WINTER _____ SPRING ☒E. TOTAL NUMBER OF EMPLOYEES AT THIS SITE VARIES WITH SEASON
FROM 35 TO 55

6. MATERIAL USED IN MANUFACTURING

A. STARTING MATERIAL USED IN PROCESS OR EQUIPMENT, B. ANNUAL CONSUMPTION UNITS

MURIATE OF POTASH	14000	TONS
TRIPLE SUPERPHOSPHATE	14000	"
SULFATE OF AMMONIA	7000	"
ANHYDROUS AMMONIA	2000	"
SULFURIC ACID	4000	"
PHOSPHORIC ACID	4000	"

0366C 01518

C. FINISHED PRODUCT	D. ANNUAL PRODUCTION	UNITS
COMMERCIAL FERTILIZER	45000	TONS

7. TYPE AND QUANTITY OF DISCHARGE THAT COULD POSSIBLY BE EMITTED FROM PROCESS EQUIPMENT TO THE ATMOSPHERE THROUGH STACKS OR DUCTS. STEAM FROM

GRANULATOR STACK. STEAM & SMALL AMOUNTS OF
FINELY DIVIDED DUST FROM DRYER STACK.

8. EQUIPMENT USED IN MANUFACTURING.

A. TYPE OF OVEN(S) USED NONE

B. TYPE OF MELTING FURNACE(S) USED NONE

C. TYPE OF TANK(S) USED NONE

D. OTHER EQUIPMENT OR OPERATION CAPABLE OF EMISSIONS TO THE ATMOSPHERE

FERTILIZER GRANULATOR & ROTARY DRYER

E. TEMPERATURE RANGE DURING PROCESS — °F to — °F

9. ORGANIC SOLVENTS

A. NONE ☒

03660101519

B. SPECIFIC TYPE OF SOLVENT.	C. AMOUNT	D. USED FOR

10. SPRAY COATING

A. NONE ☒

B. SPRAY COATING APPLIED AT THIS SITE.

C. AMOUNT USED

D. TYPE OF SPRAY BOOTH USED

E. USED FOR

F. DAYS PER WEEK SPRAY BOOTH IS IN OPERATION

G. PRINCIPAL TYPE OF SPRAY BOOTH EXHAUST CONTROL

11. AIR POLLUTION CONTROLS

A. NONE

B. TYPE

C. NO.

D. USED FOR

E. DATE INST.

CYCLONES	4	DRYER DUST	1957
WATER SCRUBBER	1	GRANULATOR EMISSION	1960

03660001520

12. REFUSE DISPOSAL

A. NOT APPLICABLE _____

B. AMOUNT OF COMBUSTIBLE REFUSE DISPOSED OF PER YEAR 10 TONS PER YEARC. PRINCIPAL METHOD OF DISPOSAL BURNINGD. PRINCIPAL TYPE OF REFUSE BURNING UNIT SQUARE EXPANDEDMETAL BOXES

13. INCINERATORS AND BOILERS

A. NONE ☒

B. TYPE OF EQUIPMENT	C. FUEL	D. DATE	E. LOCATION	F. CONTROL

14. FLOW DIAGRAM _____

A. COMPLETED _____ B. ATTACHED _____

0366C 01521

ILLINOIS AIR POLLUTION CONTROL BOARD

EMISSIONS INVENTORY

FIRM NAME MOBIL CHEMICAL COMPANY
 ADDRESS Kings Highway & Penn. R.R. Tracks
 CITY E. St. Louis, Illinois
 PERSON CONTACTED L. F. Patterson TITLE Plant Manager DATE 20 May, 1967
 TELEPHONE NUMBER OF FIRM 271-3313 INVESTIGATOR _____

1. FUEL USED FOR HEAT, POWER, OR ELECTRICAL GENERATION.

A. NOT APPLICABLE _____
 B. PRINCIPAL TYPE OF FUEL USED Fuel Oil #2
 C. SECONDARY TYPE OF FUEL USED _____
 D. SOURCE OF COAL _____
 E. TRADE NAME OF COAL _____ SIZE _____
 F. FUEL OIL NO. #2 SULFUR CONTENT .03500 Weight Per cent

2. AMOUNT OF FUEL USED.

		<u>Coal</u>	<u>Oil</u>	<u>Gas</u>
A. NOT APPLICABLE	_____			
B. AMOUNT OF PRINCIPAL FUEL	<u>169,026 (1966)</u>	TONS,	<u>GALS,</u>	CU.FT./ Year
C. AMOUNT OF SECONDARY FUEL	_____	TONS,	<u>GALS,</u>	CU.FT./ Year
D. MINIMUM MONTHLY RATE PRINCIPAL FUEL USE	_____	TONS,	<u>GALS,</u>	CU.FT./ Year
E. MAXIMUM MONTHLY RATE PRINCIPAL FUEL USE	_____	TONS,	<u>GALS,</u>	CU.FT./ Year

3. COAL BURNING UNIT(S).

A. NOT APPLICABLE X
 B. NUMBER OF UNITS _____
 C. PRINCIPAL TYPE(S) OF COAL BURNING UNIT(S) _____

0366001525

D. HOW FIRED? _____

E. CAPACITY _____ TONS PER HOUR.

F. TYPE OF FLY ASH COLLECTION UNIT(S) _____

4. STACK INFORMATION

A. NOT APPLICABLE _____

B. NUMBER OF STACKS 1C. STACK HEIGHT ABOVE GRADE 70 FT.D. STACK USE Convey steam and Ammonium Chlorides and other related elements
after passing through scrubber system.

5. MANUFACTURING ACTIVITIES

A. DAYS PER WEEK NORMALLY IN OPERATION 5B. DAYS PER YEAR 200C. NO. OF SHIFTS NORMALLY IN OPERATION 3 PER DAYD. PEAK SEASON. STEADY _____ SUMMER _____ FALL X WINTER X SPRING XE. TOTAL NUMBER OF EMPLOYEES AT THIS SITE 40

6. MATERIAL USED IN MANUFACTURING

A. STARTING MATERIAL USED IN PROCESS OR EQUIPMENT	B. ANNUAL COMSUMPTION	UNITS
(DAP) Diammonium Phosphate (18-46-0)	3,795	Tons
Muriate of Potash (61%)	14,550	Tons
Sulfate of Ammonium (21%)	2,564	Tons
Concentrated Superphosphate (46%)	16,049	Tons
Nitrogen Solution (448)	5,734	Pounds
Anhydrous Ammonia (82.2)	813	Pounds

0366001526

C. FINISHED PRODUCT	D. ANNUAL PRODUCTION	UNITS
Fertilizer Compounds	53,495	26 Items in tons

7. TYPE AND QUANTITY OF DISCHARGE THAT COULD POSSIBLY BE EMITTED FROM PROCESS EQUIPMENT TO THE ATMOSPHERE THROUGH STACKS OR DUCTS. _____

Small quantities of fluorine, and ammonia, intermittent emission

8. EQUIPMENT USED IN MANUFACTURING.

A. TYPE OF OVEN(S) USED _____

B. TYPE OF MELTING FURNACE(S) USED _____

C. TYPE OF TANK(S) USED _____

D. OTHER EQUIPMENT OR OPERATION CAPABLE OF EMISSIONS TO THE ATMOSPHERE _____

Furnace to produce heat for drying fertilizer

E. TEMPERATURE RANGE DURING PROCESS _____ °F to _____ °F

Furnace - 600° F to 1200° F

Product - 220° F to 170° F

9. ORGANIC SOLVENTS

A. NONE X

03660001527

B. SPECIFIC TYPE OF SOLVENT.	C. AMOUNT	D. USED FOR

10. SPRAY COATING

A. NONE X

B. SPRAY COATING APPLIED AT THIS SITE.

C. AMOUNT USED

D. TYPE OF SPRAY BOOTH USED

E. USED FOR

F. DAYS PER WEEK SPRAY BOOTH IS IN OPERATION

G. PRINCIPAL TYPE OF SPRAY BOOTH EXHAUST CONTROL

11. AIR POLLUTION CONTROLS

A. NONE

B. TYPE R-Roto-Clone

C. NO.

D. USED FOR

E. DATE INST.

Wet Centrifugal		Trap Dust and other	Dec., 1964
Dust Collector		materials before discharge	
		to atmosphere	

03660001528

12. REFUSE DISPOSAL

- A. NOT APPLICABLE _____
- B. AMOUNT OF COMBUSTIBLE REFUSE DISPOSED OF PER YEAR unknown; normal plant trash TONS PER YEAR
- C. PRINCIPAL METHOD OF DISPOSAL Being disposed of by private dumping service
- D. PRINCIPAL TYPE OF REFUSE BURNING UNIT _____

13. INCINERATORS AND BOILERS

- A. NONE _____

B. TYPE OF EQUIPMENT	C. FUEL	D. DATE	E. LOCATION	F. CONTROL
Boiler - E9B150B	Oil #2	Aug., 1966	Boiler Room	Automatic Fire
			Granular Plant	Control

14. FLOW DIAGRAM

- A. COMPLETED _____
- B. ATTACHED _____

0366001529



16-P

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706
TELEPHONE (217) 525-5811

RECEIVED

MAR 15 1974
163050 AAB

AIR POLLUTION EPISODE ACTION PLAN

NAME OF INSTALLATION:

SWIFT CHEMICAL COMPANY

DATE:

3-12-74

LOCATION OF INSTALLATION - STREET:

2501 NORTH KINGSHIGHWAY

CITY OR TOWNSHIP:

FAIRMONT CITY

COUNTY:

ST. CLAIR

MAILING ADDRESS - STREET OR BOX NO.:

2501 NORTH KINGSHIGHWAY

CITY:

FAIRMONT CITY

STATE AND ZIP:

ILLINOIS

62201

PERSON TO BE NOTIFIED:

TITLE:

OFFICE PHONE:

HOME PHONE:

1.	R. O. BRITT	OPER. MGR	271-5650	632-2196
2.	B. HUCHER	PROD. COORD.	271-5650	345-6573
3.	G. SAMOSKA	MASTER MECH.	271-1208	875-4076

MANUFACTURING PROCESSES: Describe operations or products manufactured.

MANUFACTURE COMMERCIAL FERTILIZER, SHIP COMMERCIAL FERTILIZER.

FUEL COMBUSTION EMISSION SOURCES: Describe combustion equipment, purpose, type of fuel used and rated heat capacity. If capacity over 10 million btu/hr total, specify means whereby four-day supply of low ash, low sulfur fuel is assured unless an emission reduction equivalent to the use of such fuel is planned during alerts.

Direct heat combustion for chemical fertilizer - 9.8 Million BTU/Hr. (Max.)
Burns #2 fuel oil with Max. 4% S - 10000 Gal. supply tank.

REFUSE BURNING OR INCINERATION DEVICES: Indicate amount of refuse burned, type of control device if installed, specify what preparations have been made to store or handle a four-day accumulation of refuse.

REFUSE HAULED AWAY BY CONTRACT SCAVENGER SERVICE.

PROCESS EMISSION SOURCES: List all sources of air contaminants not described above:

1. Ammoniator/granulator for Chemical fertilizers.
2. Dry and cool chemical fertilizers.

REMARKS:

PERSON TO BE CONTACTED FOR FURTHER INFORMATION:

R. O. BRITT

271-5650

(Name)

(Phone)

SIGNATURE: The undersigned hereby submits its episode action plan in accordance with Rule 410, Chapter 2, Part IV: Illinois Pollution Control Regulations amended August 15, 1972 and certifies that the statements contained herein are true and correct. This plan indicates emission reduction actions which will be taken in the event of an air pollution episode.

OWNER OF FACILITY

SWIFT CHEMICAL COMPANY

(printed)

OPERATOR OF FACILITY (If other than owner)

Name (printed)

Signature

OPER. MGR.

Signature

Title

Title

NAME OF INSTALLATION:

SWIFT CHEMICAL COMPANY

YELLOW ALERT REQUIREMENTS

Open burning prohibited; boiler lancing, soot blowing, and certain incineration authorized only between 12:00 noon and 4:00 p.m. Fuel combustion emission sources rated in excess of 10 million btu/hr shall use fuel with a sulfur content of less than 1.0% (1.5% for fuel oil) or attain an equivalent emissions reduction. Variances and programs of delayed compliance for process emission sources suspended. No actions required of process emission sources meeting Illinois emission standards.

Indicate actions your facility will take to meet requirements:

NOTIFY SWIFT SUPERVISORS TO BEGIN YELLOW ALERT ACTIONS. OPERATIONS THAT CAN BE CONVENIENTLY CLOSED DOWN WILL BE STOPPED. MIXED FERTILIZER OPERATION WILL BE REDUCED FROM NORMAL RATE TO 16TPH. THESE ACTIONS CAN BE PUT INTO EFFECT WITHIN TWO HOURS AFTER NOTIFICATION. PLANT DOES NOT PRACTICE OPEN BURNING. FUEL OIL, LPG, PROPANE AND GASOLINE ONLY FUELS USED. BOILER LANCING IS NEVER REQUIRED.

Estimated Operations Reduction: 20 %

Estimated Emissions Reduction: 20 %

RED ALERT REQUIREMENTS

Continue all Yellow Alert actions. Operation of manufacturing emission sources, including process steam generators shall be curtailed to the greatest extent possible without causing injury to persons or severe damage to equipment. All incineration is now prohibited.

Indicate actions your facility will take to meet requirements:

CONTINUE ALL YELLOW ALERT ACTIONS AND COMPLETELY STOP CHEMICAL FERTILIZER MIXING OPERATION. PLANT HAS NO PROCESS STEAM GENERATORS IN USE AND DOES NOT PRACTICE OPEN BURNING. REFUSE IS HAULED AWAY BY A CONTRACT SCAVENGER.

Estimated Total Operations Reduction: 80 %

Estimated Total Emissions Reduction: 75 %

EMERGENCY REQUIREMENTS

Continue Yellow and Red Alert actions. Non-essential use of electricity and motor vehicles prohibited. Buildings heated to 65°F or less. All manufacturing and most industrial, commercial, governmental, educational, and recreational facilities now curtail or cease operation.

Indicate actions your facility will take to meet requirements:

CONTINUE ALL YELLOW AND RED ALERT ACTIONS. STOP ALL OPERATIONS, INCLUDING RAW MATERIAL UNLOADING, PRODUCT PACKAGING AND SHIPPING. WILL SHUT OFF ALL HEATER UNITS IF TEMP. IS ABOVE 32°F. ALL LIGHTS AND AIR-CONDITIONERS WILL BE TURNED OFF. SUSPEND ALL TRACTOR AND LIFT TRUCK OPERATIONS. AUTOMOBILE AND TRUCK USE BY PERSONNEL WILL BE LIMITED TO EMERGENCY USE.

Estimated Total Operations Reduction: 80 %

Estimated Total Emissions Reduction: 75 %